

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Original) A monoclonal antibody that specifically binds to a human VEGF with dissociation constant  $K_d$  equal to or lower than 0.2 nM.
2. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.1 nM.
3. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.08 nM.
4. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.05 nM.
5. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.01 nM.
6. (Original) The monoclonal antibody of claim 1, wherein the dissociation constant  $K_d$  is equal to or lower than 0.005 nM.
7. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of scFv.
8. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of Fab.
9. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of fully assembled antibody.
10. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of scFv and the dissociation constant  $K_d$  is measured at about 4°C, 25°C, 37°C or 42°C.

11. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of Fab and the dissociation constant K<sub>d</sub> is measured at about 4°C, 25°C, 37°C or 42°C.

12. (Original) The monoclonal antibody of claim 1, wherein the antibody is in a form of Fab and the dissociation constant K<sub>d</sub> is measured at about 37°C.

13. [[14.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has V<sub>L</sub> comprising the amino acid sequence of

X<sub>1</sub>X<sub>2</sub>X<sub>3</sub>X<sub>4</sub>TQX<sub>5</sub>PSX<sub>6</sub>X<sub>7</sub>SX<sub>8</sub>X<sub>9</sub>X<sub>10</sub>GX<sub>11</sub>X<sub>12</sub>X<sub>13</sub>X<sub>14</sub>IX<sub>15</sub>CX<sub>16</sub>X<sub>17</sub>SX<sub>18</sub>X<sub>19</sub>IX<sub>20</sub>X<sub>21</sub>X<sub>22</sub>X<sub>23</sub>X<sub>24</sub>WYQQX<sub>2</sub><sub>5</sub>PGX<sub>26</sub>APX<sub>27</sub>X<sub>28</sub>LX<sub>29</sub>YX<sub>30</sub>X<sub>31</sub>X<sub>32</sub>X<sub>33</sub>LX<sub>34</sub>X<sub>35</sub>GVX<sub>36</sub>X<sub>37</sub>RFSGX<sub>38</sub>X<sub>39</sub>SGTDFX<sub>40</sub>LTIX<sub>41</sub>X<sub>42</sub>LQX<sub>43</sub>X<sub>44</sub>DX<sub>45</sub>AX<sub>46</sub>YYCQQX<sub>47</sub>X<sub>48</sub>X<sub>49</sub>X<sub>50</sub>PX<sub>51</sub>TFGX<sub>52</sub>GTX<sub>53</sub>X<sub>54</sub>IK, wherein the underlined regions are designated as V<sub>L</sub>/CDR1, V<sub>L</sub>/CDR2, and V<sub>L</sub>/CDR3, respectively, whereas the rest of the region is designated as framework, and wherein X<sub>1</sub> is D, E or A; X<sub>2</sub> is I, or T; X<sub>3</sub> is V, E, K, R, Q, or T; X<sub>4</sub> is M, or L; X<sub>5</sub> is S, or T, X<sub>6</sub> is S, or T; X<sub>7</sub> is L, or V; X<sub>8</sub> is A, or V; X<sub>9</sub> is S, or T; X<sub>10</sub> is P, V, L, A, or I; X<sub>11</sub> is E, or D; X<sub>12</sub> is R, or T; X<sub>13</sub> is A, or V I; X<sub>14</sub> is T, or A; X<sub>15</sub> is T, S, or A; X<sub>16</sub> is S, R, N, K, H, or Q; X<sub>17</sub> is A, or S; X<sub>18</sub> is Q, or R; X<sub>19</sub> is S, D, A, or P; X<sub>20</sub> is S, G, R, T, or Y; X<sub>21</sub> is T, N, S, D, or K; X<sub>22</sub> is Y, or D; X<sub>23</sub> is L, or I; X<sub>24</sub> is A, N, or T; X<sub>25</sub> is K, or I; X<sub>26</sub> is Q, K, T, or I; X<sub>27</sub> is R, K, Q, N, H, S, or E; X<sub>28</sub> is V, or L; X<sub>29</sub> is I, or V; X<sub>30</sub> is F, A, G, D, or S; X<sub>31</sub> is A, or T; X<sub>32</sub> is S, or T; X<sub>33</sub> is N, S, R, or T; X<sub>34</sub> is A, H, or Q; X<sub>35</sub> is S, or G; X<sub>36</sub> is P, T; X<sub>37</sub> is S, N, D, G, or Y; X<sub>38</sub> is S, or T; X<sub>39</sub> is G, or R; X<sub>40</sub> is T, or A; X<sub>41</sub> is S, or R; X<sub>42</sub> is S, or R; X<sub>43</sub> is P, or A; X<sub>44</sub> is E, or D; X<sub>45</sub> is F, V, or S; X<sub>46</sub> is V, T, I, A, or S; X<sub>47</sub> is Y, or S; X<sub>48</sub> is S, Y, or N; X<sub>49</sub> is S, or T; X<sub>50</sub> is T, V, A, P, K, G, S, or I; X<sub>51</sub> is W, or Y; X<sub>52</sub> is Q, or G; X<sub>53</sub> is V, or L; and X<sub>54</sub> is E, D, or A.

14. [[15.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has V<sub>L</sub> comprising the amino acid sequence of

X<sub>1</sub>X<sub>2</sub>X<sub>3</sub>LTQPPSX<sub>4</sub>SX<sub>5</sub>TPGQX<sub>6</sub>VTISCSGX<sub>7</sub>X<sub>8</sub>SNX<sub>9</sub>GX<sub>10</sub>NX<sub>11</sub>VX<sub>12</sub>WYQQX<sub>13</sub>PGX<sub>14</sub>APKX<sub>15</sub>LX<sub>16</sub>YX<sub>17</sub>NX<sub>18</sub>X<sub>19</sub>RPSGVPX<sub>20</sub>RX<sub>21</sub>SGSX<sub>22</sub>SX<sub>23</sub>TSASLAISGLX<sub>24</sub>SEDEADYYCX<sub>25</sub>X<sub>26</sub>WDDSLX<sub>27</sub>GYVFGX<sub>28</sub>GTX<sub>29</sub>LTVL, wherein the underlined regions are designated as V<sub>L</sub>/CDR1, V<sub>L</sub>/CDR2, and V<sub>L</sub>/CDR3, respectively, whereas the rest of the region is designated as framework, and wherein X<sub>1</sub> is Q L, or N; X<sub>2</sub> is P A F, or S; X<sub>3</sub> is V, or M; X<sub>4</sub> is A, or T; X<sub>5</sub> is G, or A; X<sub>6</sub> is R, or S; X<sub>7</sub> is S,

or T; X<sub>8</sub> is S, T Y, or N; X<sub>9</sub> is I , or V; X<sub>10</sub> is S, or R; X<sub>11</sub> is S, P, N, A, or T; X<sub>12</sub> is N, T , or Y; X<sub>13</sub> is L, or F; X<sub>14</sub> is T, or A; X<sub>15</sub> is V, L, or F; X<sub>16</sub> is M, or I; X<sub>17</sub> is G, T, or S; X<sub>18</sub> is N, or D; X<sub>19</sub> is Q, or E; X<sub>20</sub> is D, or E; X<sub>21</sub> is F, or L; X<sub>22</sub> is K, or R; X<sub>23</sub> is G, or A; X<sub>24</sub> is Q, L, or R; X<sub>25</sub> is A, or G; X<sub>26</sub> is A, S, or T; X<sub>27</sub> is N, S, or T; X<sub>28</sub> is T, or A; and X<sub>29</sub> is K, or Q.

15. [[16.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has V<sub>L</sub> comprising the amino acid sequence of  
QSALTQPPSVSGAPGQRVTISCTGRSSNIGAGHDVHWYQQLPGTAPKLLIYANDQRPSGV  
DRFSDSKGTSASLGISGLRSEDEADYFCATWDDSLHGYVFGTGTKVTVL (SEQ ID No: 54).

16. [[17.]] (Withdrawn-currently amended) A monoclonal antibody is provided that specifically binds to a human VEGF and has V<sub>H</sub> comprising the amino acid sequence of  
X<sub>1</sub>X<sub>2</sub>QLVX<sub>3</sub>SGGGX<sub>4</sub>VQP<sub>5</sub>GGGX<sub>6</sub>LRLX<sub>6</sub>CAX<sub>7</sub>SGX<sub>8</sub>X<sub>9</sub>X<sub>10</sub>X<sub>11</sub>X<sub>12</sub>X<sub>13</sub>GX<sub>14</sub>NWX<sub>15</sub>RQAPGKGX<sub>16</sub>E  
WVGWX<sub>17</sub>NTX<sub>18</sub>X<sub>19</sub>GX<sub>20</sub>X<sub>21</sub>TYX<sub>22</sub>X<sub>23</sub>X<sub>24</sub>FX<sub>25</sub>RRX<sub>26</sub>TX<sub>27</sub>SX<sub>28</sub>X<sub>29</sub>X<sub>30</sub>SKX<sub>31</sub>X<sub>32</sub>X<sub>33</sub>YLQX<sub>34</sub>NSL  
RAEDTAVYYCAX<sub>35</sub>YPX<sub>36</sub>YYGX<sub>37</sub>SHWYFDVWX<sub>38</sub>QGTLVTVSS, wherein the underlined regions are designated as CDR1, CDR2, and CDR3, respectively, whereas the rest of the region is designated as framework according to Kabat nomenclature, and wherein X<sub>1</sub> is E, or Q; X<sub>2</sub> is V, or G; X<sub>3</sub> is Q, or E; X<sub>4</sub> is V, or L; X<sub>5</sub> is S, or T; X<sub>6</sub> is S T, or R; X<sub>7</sub> is A, or V; X<sub>8</sub> is Y, or F; X<sub>9</sub> is T, D, N, S, or A; X<sub>10</sub> is F, or L; X<sub>11</sub> is T, D, Y, A, S, or N; X<sub>12</sub> is N, H, or S; X<sub>13</sub> is Y, or F; X<sub>14</sub> is M, L, I, or V; X<sub>15</sub> is I, V, or L; X<sub>16</sub> is L, or P; X<sub>17</sub> is I, or V; X<sub>18</sub> is Y, or N; X<sub>19</sub> is T, or N; X<sub>20</sub> is E, or A; X<sub>21</sub> is P, T, or S; X<sub>22</sub> is A, or V; X<sub>23</sub> is A, H, Q, P, D, or E; X<sub>24</sub> is D, or E; X<sub>25</sub> is K, or T; X<sub>26</sub> is V, F, or L; X<sub>27</sub> is F, or I; X<sub>28</sub> is L, or R; X<sub>29</sub> is D, or N; X<sub>30</sub> is T, or N; X<sub>31</sub> is S, or N; X<sub>32</sub> is T, Q, P, or K; X<sub>33</sub> is A, V, or P; X<sub>34</sub> is L, or M; X<sub>35</sub> is K, or R; X<sub>36</sub> is H, or Y; X<sub>37</sub> is S, R, or T; and X<sub>38</sub> is G, or A.

17. [[18.]] (Withdrawn-currently amended) A monoclonal antibody is provided that specifically binds to a human VEGF and has V<sub>L</sub> comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:2-54, more preferably comprising the amino acid sequence selected from the group consisting of SEQ ID NO:14, SEQ ID NO:26, SEQ ID NO:28, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:44, SEQ ID NO:47, and SEQ ID NO:54.

18. [[19.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has  $V_H$  comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:57-110 and SEQ ID NOs:285-310, and preferably comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:61-64, SEQ ID NO:67, 68, 70, 75, 83, 88, 89, 90, 91, 92, 93, 94, and 96-110.

19. [[20.]] (Withdrawn-currently amended) A monoclonal antibody is provided that specifically binds to a human VEGF and has CDR2 in the  $V_L$  region ( $V_L/CDR2$ ) comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:195-209.

20. [[21.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR3 in the  $V_L$  region ( $V_L/CDR3$ ) comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:210-228.

21. [[22]]. (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has a framework region (FR) CDR3 in the  $V_L$  region ( $V_L/FR$ ) comprising the amino acid sequence selected from the group consisting of: SEQ ID NO:229-269, and preferably comprising the amino acid sequence selected from the group consisting of SEQ ID NO:232, 235, 237, 251, 255, 263, and 265.

22. [[23]]. (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR1 in the  $V_H$  region ( $V_H/CDR1$ ) comprising the amino acid sequence of  $GX_1X_2X_3X_4X_5X_6GX_7N$ , wherein  $X_1$  is Y, or F;  $X_2$  is D, N, T, S, or A;  $X_3$  is F, or L;  $X_4$  is T, D, S, Y, A, or N;  $X_5$  is H, N, or S;  $X_6$  is Y, or F;  $X_7$  is M, L, I, or V.

23. [[24.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR2 in the  $V_H$  region ( $V_H/CDR2$ ) comprising the amino acid sequence of  $WX_1NTX_2X_3GEX_4TYX_5X_6X_7FX_8R$ , wherein  $X_1$  is I, or V;  $X_2$  is Y, or N;  $X_3$  is T, or N;  $X_4$  is P, T, or S;  $X_5$  is A, or V;  $X_6$  is A, Q, P, H, D, or E;  $X_7$  is D, or E; and  $X_8$  is K, or T.

24. [[25.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR2 in the V<sub>H</sub> region (V<sub>H</sub>/CDR2) comprising the amino acid sequence selected from the group consisting of: SEQ ID NOs:136-156.

25. [[26.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR3 in the V<sub>H</sub> region (V<sub>H</sub>/CDR3) comprising the amino acid sequence of KYPX<sub>1</sub>YYGX<sub>2</sub>SHWYFDV, wherein X<sub>1</sub> is Y, or H, and X<sub>2</sub> is R.

26. [[27.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has CDR3 in the V<sub>H</sub> region (V<sub>H</sub>/CDR3) comprising the amino acid sequence selected from the group consisting of SEQ ID NOs:311-337.

27. [[28.]] (Withdrawn-currently amended) A monoclonal antibody that specifically binds to a human VEGF and has FR in the V<sub>H</sub> region (V<sub>H</sub>/FR) comprising the amino acid sequence of X<sub>1</sub>VQLVX<sub>2</sub>SGGGX<sub>3</sub>VQPGGX<sub>4</sub>LRLX<sub>5</sub>CAX<sub>6</sub>S/CDR1/WX<sub>7</sub>RQAPGKGLEWVG/CDR2/RX<sub>8</sub>TX<sub>9</sub>S X<sub>10</sub>DX<sub>11</sub>SKX<sub>12</sub>X<sub>13</sub>X<sub>14</sub>YLQX<sub>15</sub>NSLRAEDTAVYYCA/CDR3/WX<sub>16</sub>QGTLTVSS, wherein X<sub>1</sub> is E, or Q; X<sub>2</sub> is Q, or E; X<sub>3</sub> is V, or L; X<sub>4</sub> is S, or T; X<sub>5</sub> is S, T, or R; X<sub>6</sub> is A, or V; X<sub>7</sub> is I, or V; X<sub>8</sub> is F, or V; X<sub>9</sub> is F, or I; X<sub>10</sub> is L, or R is X<sub>11</sub> is T, or N; X<sub>12</sub> is S, or N; X<sub>13</sub> is T, Q, or K; X<sub>14</sub> is A, or V; X<sub>15</sub> is M, or L; and X<sub>16</sub> is G, or A.

28. [[29.]] (Currently amended) A monoclonal antibody that specifically binds to a human VEGF and has a V<sub>L</sub> and V<sub>H</sub> pair selected from the group consisting of: ~~SEQ ID NO:1 and 70; SEQ ID NO:1 and 67; SEQ ID NO:1 and 75; SEQ ID NO:1 and 83; SEQ ID NO:14 and 55; SEQ ID NO:1 and 101; SEQ ID NO:1 and 100; SEQ ID NO:14 and 102; SEQ ID NO:1 and 103; SEQ ID NO:1 and 104; SEQ ID NO:1 and 105; SEQ ID NO:36 and 100; SEQ ID NO:26 and 100; SEQ ID NO:28 and 100; SEQ ID NO:37 and 100; SEQ ID NO:44 and 100; SEQ ID NO:54 and 100; and SEQ ID NO:47 and 100, preferably selected from the group consisting of SEQ ID NO:28 and 61; SEQ ID NO:28 and 62; SEQ ID NO:28 and 63; SEQ ID NO:28 and 64; SEQ ID NO:28 and 68; SEQ ID NO:28 and 85; SEQ ID NO:28 and 86; SEQ ID NO:28 and 87; SEQ ID NO:28 and 88; SEQ ID NO:28 and 89; SEQ ID NO:28 and 90; SEQ ID NO:28 and 91; SEQ ID NO:28 and 92; SEQ ID NO:28 and 93; SEQ ID NO:28 and 94; SEQ ID NO:28 and 95; SEQ ID NO:28 and 96; SEQ ID~~

~~NO:28 and 97; SEQ ID NO:28 and 98; SEQ ID NO:28 and 99; SEQ ID NO:28 and 106; SEQ ID NO:28 and 107; SEQ ID NO:28 and 108; and SEQ ID NO:28 and 109; and SEQ ID NO:28 and 110.~~

29. [[30.]] (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant K<sub>d</sub> equal to or lower than 10 nM.

30. [[31.]] (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant K<sub>d</sub> equal to or lower than 1 nM.

31. [[32.]] (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant K<sub>d</sub> equal to or lower than 0.1 nM.

32. [[33.]] (Withdrawn-currently amended) The monoclonal antibody of any of claims 14-29, wherein the antibody has dissociation constant K<sub>d</sub> equal to or lower than 0.01 nM.

33. (New) A monoclonal antibody that specifically binds to human VEGF and has a VL and VH pair selected from the group consisting of: SEQ ID NO:26 and 88; SEQ ID NO:26 and 90; SEQ ID NO:26 and 91; SEQ ID NO:26 and 106; SEQ ID NO:26 and 107; SEQ ID NO:26 and 108; SEQ ID NO:26 and 109; SEQ ID NO:28 and 88; SEQ ID NO:28 and 90; SEQ ID NO:28 and 91; SEQ ID NO:28 and 106; SEQ ID NO:28 and 107; SEQ ID NO:28 and 108; SEQ ID NO:28 and 109; SEQ ID NO:36 and 88; SEQ ID NO:36 and 90; SEQ ID NO:36 and 91; SEQ ID NO:36 and 106; SEQ ID NO:36 and 107; SEQ ID NO:36 and 108; and SEQ ID NO:36 and 109.

34. (New) A monoclonal antibody that specifically binds to human VEGF and has a VL and VH pair selected from the group consisting of: SEQ ID NO:26 and 106; SEQ ID NO:28 and 106; and SEQ ID NO:36 and 106.

35. (New) A monoclonal antibody that specifically binds to human VEGF and has a V<sub>L</sub> and V<sub>H</sub> pair consisting of SEQ ID NO:28 and 106.